General

Guideline Title

2015 recommendations for the management of polymyalgia rheumatica: a European League Against Rheumatism/American College of Rheumatology collaborative initiative.

Bibliographic Source(s)

Dejaco C, Singh YP, Perel P, Hutchings A, Camellino D, Mackie S, Abril A, Bachta A, Balint P, Barraclough K, Bianconi L, Buttgereit F, Carsons S, Ching D, Cid M, Cimmino M, Diamantopoulos A, Docken W, Duftner C, Fashanu B, Gilbert K, Hildreth P, Hollywood J, Jayne D, Lima M, Maharaj A, Mallen C, Martinez-Taboada V, Maz M, Merry S, Miller J, Mori S, Neill L, Nordborg E, Nott J, Padbury H, Pease C, Salvarani C, Schirmer M, Schmidt W, Spiera R, Tronnier D, Wagner A, Whitlock M, Matteson EL, Dasgupta B, European League Against Rheumatism, American College of Rheumatology. 2015 recommendations for the management of polymyalgia rheumatica: a European League Against Rheumatism/American College of Rheumatology collaborative initiative. Arthritis Rheumatol. 2015 Oct;67(10):2569-80. [78 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Note: In addition to the recommendations below, the guideline group agreed upon several principles deemed to be fundamental aspects of clinical care in polymyalgia rheumatica (PMR) as detailed in Box 1 in the original guideline document. These principles have not directly resulted from the systematic literature review, but are consensus based. They are intended as a framework for the implementation of the specific treatment recommendations and are of a general "overarching" nature, a concept adapted from earlier European League Against Rheumatism (EULAR) recommendations.

The strength of the recommendations ("conditional" or "strong") is defined at the end of the "Major Recommendations" field.

Specific Recommendations for the Management of Polymyalgia Rheumatica (PMR) Patients

The panel strongly recommends using glucocorticoids (GCs) instead of nonsteroidal anti-inflammatory drugs (NSAIDs) in patients with PMR, with the exception of possible short-term use of

NSAIDs and/or analgesics in PMR patients with pain related to other conditions. No specific recommendation can be made for analgesics.

The panel strongly recommends using the minimum effective individualized duration of GC therapy in PMR patients.

The panel conditionally recommends using the minimum effective GC dose within a range of 12.5–25 mg prednisone equivalent daily as the initial treatment of PMR. A higher initial prednisone dose within this range may be considered in patients with a high risk of relapse and low risk of adverse events, whereas in patients with relevant comorbidities (e.g., diabetes, osteoporosis, glaucoma, etc.) and other risk factors for GC-related side effects, a lower dose may be preferred. The panel discourages conditionally the use of initial doses ≤7.5 mg/day and strongly recommends against the use of initial doses >30 mg/day.

The panel strongly recommends individualizing dose tapering schedules, predicated to regular monitoring of patient disease activity, laboratory markers and adverse events. The following principles of GC dose tapering are suggested:

Initial tapering: Taper dose to an oral dose of 10 mg/day prednisone equivalent within 4 to 8 weeks.

Relapse therapy: Increase oral prednisone to the pre-relapse dose and decrease it gradually (within 4–8 weeks) to the dose at which the relapse occurred.

Tapering once remission is achieved (following initial and relapse therapies): Taper daily oral prednisone by 1 mg every 4 weeks (or by 1.25 mg decrements using schedules such as 10/7.5 mg alternate days, etc.) until discontinuation given that remission is maintained.

The panel conditionally recommends considering intramuscular (i.m.) methylprednisolone as an alternative to oral GCs. The choice between oral GCs and i.m. methylprednisolone remains at the discretion of the treating physician. In one clinical trial, a starting dose of 120 mg methylprednisolone i.m. injection every 3 weeks was applied (Dasgupta et al., 1998).

The panel conditionally recommends using a single rather than divided daily doses of oral GCs for the treatment of PMR, except for special situations such as prominent night pain while tapering GCs below the low-dose range (prednisone or equivalent <5 mg daily).

The panel conditionally recommends considering early introduction of methotrexate (MTX) in addition to GCs, particularly in patients at a high risk for relapse and/or prolonged therapy as well as in cases with risk factors, comorbidities and/or concomitant medications where GC-related adverse events are more likely to occur. MTX may also be considered during follow-up of patients with a relapse, without significant response to GC or experiencing GC-related adverse events. MTX has been used at oral doses of 7.5–10 mg/week in clinical trials (Caporali et al., 2004; van der Veen et al., 1996; Ferraccioli et al., 1996; Nazarinia, Moghimi, & Toussi, 2012).

The panel strongly recommends against the use of tumor necrosis factor alpha (TNFa) blocking agents for treatment of PMR.

The panel conditionally recommends considering an individualized exercise program for PMR patients aimed at the maintenance of muscle mass and function, and reducing risk of falls especially in older persons on long-term GCs as well as in frail patients.

The panel strongly recommends against the use of the Chinese herbal preparations Yanghe and Biqi capsules in PMR patients.

Definitions

Final recommendations were either "in favor" or "against" an intervention, and were graded as "conditional" or "strong." A strong recommendation in favor (against) was considered when the panel was certain that benefits did (did not) outweigh risks and burdens, the preferences/values of patients were met (not met) and resource use was reasonable (unreasonably high). If uncertainty existed, a conditional recommendation was made.

Clinical Algorithm(s)

An algorithm titled "Algorithm based on the 2015 European League Against Rheumatism

(EULAR)/American College of Rheumatology (ACR) recommendations for the management of polymyalgia rheumatica (PMR)" is provided in the original guideline document.

Scope

Disease/Condition(s)

Polymyalgia rheumatica (PMR)

Note: Management of PMR with concomitant giant cell arteritis (GCA), rheumatoid arthritis (RA) or other conditions that present with PMR features or mimic PMR is not addressed by these recommendations.

Guideline Category

Management

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Rheumatology

Intended Users

Physicians

Guideline Objective(s)

To provide recommendations for the management of patients with polymyalgia rheumatica (PMR) in various settings that are based on clinical evidence and expert opinion including informed patient decision-making

Target Population

Patients with polymyalgia rheumatica (PMR) based on clinician diagnosis which may be supported by currently available diagnostic or classification criteria

Interventions and Practices Considered

1. Glucocorticoid (GC) therapy
    - Use of minimum effective dose of prednisone or prednisone equivalents
    - Individualized dose-tapering schedules
    - Regular monitoring of patient disease activity, laboratory markers and adverse events
    - Relapse therapy
    - Single versus divided daily dose of oral GCs
    - Intramuscular methylprednisolone
2. Nonsteroidal anti-inflammatory drugs (NSAIDs) (short term use only)

3. Methotrexate in combination with GCs
4. Individualized exercise program

Note: The following are considered but not recommended: tumor necrosis factor alpha (TNFa) blocking agents and Chinese herbal preparations Yanghe and Biqi capsules.

Major Outcomes Considered

- Disease remission
- Disease relapse
- Duration of glucocorticoid therapy
- Discontinuation of glucocorticoid therapy
- Development of giant cell arteritis
- Glucocorticoid side effects (diabetes mellitus/glucose intolerance, osteoporosis, cardiovascular disease, dyslipidemia, impaired wound healing, infections, osteonecrosis, myopathy, cataract, glaucoma, atherosclerosis, hypertension, peptic ulcer, weight gain, moon face, dyspnea, palpitations, fatigue, skin atrophy, bruising, mood disorders)
- Response to glucocorticoid therapy
- Cumulative glucocorticoid dose
- Acute phase reactants
- Patients assessment of global wellbeing
- Severity/duration of morning stiffness
- Lowest possible glucocorticoid dose (prednisone equivalent less than 5 mg/day)
- Functional status (Health Assessment Questionnaire or other measures)
- Quality of life (Short Form-36, EuroQol five dimensions questionnaire [EQ5D], etc.)
- Mortality
- Hospitalization (due to disease, its complications, co-morbidity and/or treatment related complications)
- Impact on patients' social environment
- Fatigue
- Imaging of shoulder/hip
- Healthcare resource use (health economics)
- Disease activity score

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Literature Search

A sensitive systematic literature search aimed at the retrieval of all articles on polymyalgia rheumatica (PMR) was conducted between January 1970 and June 2013. An update of the search was performed in April 2014. The protocol of this project has been available since July 2013 on the homepage of the American College of Rheumatology (ACR) (www.rheumatology.org).

Search Strategy Including Search Terms Used for Literature Search

Search strategies were designed using the following electronic databases: Ovid MEDLINE®, EMBASE, PubMed, CINAHL, Web of Science and the Cochrane Library. The thesauri was used for each database, text words, truncated text words and abbreviations as key words (see Box S2 in the supplemental document [see the "Availability of Companion Documents" field] for key words used for Ovid MEDLINE®, similar strategies were applied to other databases). "Giant cell arteritis" (and related terms) were not included as search terms due to the low expected yield and the possible large volume of non-relevant literature. The grey literature (reports by the Agency for Healthcare Research and Quality, conference abstracts from annual meetings of the American College of Rheumatology [ACR], European League Against Rheumatism [EULAR] and British Society of Rheumatology, as well as international PMR/giant cell arteritis [GCA] and anti–cytoplasmic neutrophil antibodies [ANCA] meetings) were reviewed, tracked to determine whether additional peer-reviewed articles not identified by the primary search were published. Trial registries, such as ClinicalTrials.gov, International Standard Randomised Controlled Trial Number (ISRCTN) and European Union (EU) Clinical Trials Register, were searched to identify ongoing and completed trials and we contacted sponsors and investigators to request any available results. Additional papers were retrieved searching the reference list of full papers and review articles and by contacting experts in the field.

Inclusion and Exclusion of Studies

References and abstracts identified by the search were imported into bibliographic management software (Zotero Version 4.0.20, Fairfax, VA, USA) and duplicates were removed. Titles and abstracts were screened to remove editorials, commentaries and letters without patient data. The full text of each remaining article was then tested against the inclusion and exclusion criteria. The literature review team also made every effort to identify multiple publications from a single trial.

All articles that did not report original data, did not study patients with PMR, or that considered PMR and GCA patients as a single group were excluded. For PICOs (problem/population, intervention, comparison, and outcome) on prognostic factors, reviewers excluded all studies investigating factors that were not routinely available (e.g., cytokines other the interleukin [IL]-6, adhesion molecules, etc.) and/or trials with a follow-up of fewer than 6 months (see Box 1 in the systematic review for a list of all PICO questions [see the "Availability of Companion Documents" field]).

Number of Source Documents

Out of 10,931 titles identified, 52 articles were finally selected.

See Figure 1 in the systematic review for a study flow diagram detailing the literature search (see the "Availability of Companion Documents" field).

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality appraisal of interventional and prognostic studies was performed using Grading of Recommendations, Assessment, Development and Evaluation (GRADE) and the Quality in Prognostic Studies (QUIPS) tool, respectively. The overall quality rating for interventional studies was graded in 4 categories ranging from very low to high.

Methods Used to Analyze the Evidence

Meta-Analysis

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Data Extraction

Study details were extracted using a pre-specified data extraction sheet. Interventional studies: study design, setting, participating center(s), study duration, primary endpoint(s), criteria used to define polymyalgia rheumatic (PMR), number of patients included, proportion of patients randomized/receiving treatment, age and gender of participants, proportion (plus age and gender) of individuals completing the study, reasons for losses to follow-up, handling of missing data, intervention and control treatment, including dose and administration details, and flare/rescue medication. Prognostic studies: study design, setting, participating center(s), methods used to identify population, recruitment period, study duration, observational period, primary endpoint, criteria used to define PMR, number of patients included, proportion of patients in whom the prognostic factor was measured, age and gender of participants, proportion (plus age and gender) of individuals completing the study, reasons for losses to follow-up, attempts to collect information on participants who dropped out, differences between completers/non-completers, and description of measurement of the prognostic factor. Parameters required for quality assessment (including confounders) and results related to the outcomes specified by the PICO (problem/population, intervention, comparison, and outcome) questions.

Quality Assessment and Generation of Evidence Tables

Data related to therapeutic interventions were quality-assessed using Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology. Review Manager (RevMan) and GRADE profiler (GRADEpro) were used to summarize the data on interventions and to produce the GRADE profile, respectively. The GRADE profile contains the number of studies for each intervention and outcome, the appraisal of the quality of evidence (QoE), the number of participants in intervention and control groups, the relative and absolute effect estimates and the overall quality rating (4 categories ranging from very low to high). Relative effect estimates include the relative risk (cumulative risk over an entire study using a defined endpoint) or the hazard ratio (corresponding to the instantaneous risk over the study period) for categorical outcomes. Absolute effect estimates include the number needed to treat/harm for categorical outcomes and the mean difference for continuous outcomes.

For the appraisal of studies on prognostic factors the Quality In Prognosis Studies (QUIPS) tool was used. Accordingly, potential biases (3 levels: high, moderate, low) were evaluated related to study participation, attrition, measurement of prognostic factors, measurement of/controlling for confounding variables, measurement of outcomes and statistical analysis. Additionally, the possibility of confounding by giant cell arteritis (GCA) and noted other reasons for bias were evaluated, thus resulting in a total of 8 (instead of 6) categories (QUIPS+2). For the category on confounding variables the following parameters were addressed: age, gender, acute phase reactants (i.e., erythrocyte sedimentation rate [ESR] or C-reactive protein [CRP]), disease activity/severity (determined by pain, global disease activity, morning stiffness or similar), peripheral arthritis, symptom duration, comorbidities and constitutional symptoms.

Evidence tables on prognostic factors contain the study design, the quality appraisal, criteria used to define polymyalgia rheumatica (PMR), the definition and cut-offs for the prognostic factor, the number of patients, the proportion of patients with complete follow-up data, the outcomes addressed, the effect estimate (odds ratio or hazard ratio for categorical outcomes, mean difference for continuous outcomes) and the information whether the effect estimate was adjusted for confounders by statistical methods.

The reviewers attempted to perform meta-analyses (fixed effect methods) for interventional studies whenever possible to produce an overall effect estimate. Statistical heterogeneity was assessed with the chi-squared test (significance at $p<0.1$) and the I-squared inconsistency statistic (>50% indicating significant heterogeneity). For prognostic studies, meta-analysis was impossible because of the large

heterogeneity between the studies (divergent study designs, different PMR case definitions, varying measurements and definitions of prognostic factors and outcomes as well as divergent quality). Therefore, results and quality appraisal are presented for each study and outcome separately.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Methods

For this project, the panel followed the policy and procedure manual for clinical practice guidelines by the American College of Rheumatology (ACR) (see the "Availability of Companion Documents" field). Accordingly, they used the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology as a framework to develop these recommendations involving 2 expert panels: a) a Core Expert Panel (CEP) of clinicians and methodologists who drafted the protocol, coordinated the survey on outcome parameters, conducted the systematic literature review (SLR) and the evidence synthesis; and b) a voting panel consisting of 42 members, including rheumatologists (n=25), specialists in internal medicine (n=2), general practitioners (n=4), allied health care professionals (n=4) and patient representatives (n=7) from Europe, USA, South America, Africa, India, Japan, Australia and New Zealand. The voting panel formulated the PICO (Population, Intervention, Comparator, Outcome) questions, interpreted the evidence and drafted the final recommendations.

Involvement of Patients in the Development of the Recommendations

GRADE encourages the involvement of patients in the development of management recommendations and supports a shared clinical decision of treatment between physicians and patients. For this project, patients' representatives were involved in each step, from the formulation of the key questions and outcomes, to the formulation and approval of the final recommendations. A challenge in this regard is the selection of adequate patients' representatives given that thoughts, values and preferences should be considered from as many patients' subgroups as possible. The guideline panel invited the chairs and other members of Polymyalgia Rheumatica Giant Cell Arteritis UK (PMRGCAuk) as well as patients' representatives from the USA to participate in this exercise. PMRGCAuk is a patient charity for people with polymyalgia rheumatica (PMR) and giant cell arteritis (GCA) and has recently conducted a survey within the UK to identify the thoughts and concerns of people living with PMR. The panel recognized that these people (and their experience from the survey) may not reflect the feelings of all PMR patients; however, their close contact with other PMR patients, their interest in patients' values and preference as well as their experience with research studies qualified them as representative members of the recommendation development group. For other, non-English patients, language restrictions were an insuperable barrier to participate in this project.

Formulation of the Key Questions and Outcomes

The key questions were framed in the PICO format, taking patient experiences and preferences into account. The panel formulated 12 PICO questions on therapeutic interventions and 10 questions on prognostic factors as detailed in Box 1 of the SLR (see the "Availability of Companion Documents" field). All questions were framed in the PICO format.

As per GRADE methodology, the list of outcomes was supposed to be comprehensive including all parameters potentially relevant to patients. The panel, therefore, conducted a survey among 43 rheumatologists (most of them were members of the voting panel), 87 general practitioners (GPs, all from UK) and 43 patients (all from PMRGCAuk). An international survey was unfortunately not feasible within the short time-period available given the necessity for translation of the questionnaire for non-English countries and the lack of a pre-existing research network between GPs, patients and rheumatologists in

non-UK countries.

A candidate item list was generated by literature review and additional input from the voting panel (including contribution from patients), containing 119 outcome measures including symptoms, physical examination findings, laboratory parameters, imaging, composite outcome measures, drug related adverse effects, functional status, quality of life and PMR-related complications. Survey participants were asked to rate each parameter based on its relative importance for clinical decision-making according to a 1-9 point scale (1-3 not important, 4-6 important, but not critical and 7-9 critical). All parameters with a grading of ≥7 by ≥50% of responders in at least 1 of the 3 groups (i.e., rheumatologists, GPs or patients) were presented to the voting panel, which refined and agreed upon the final list of critical outcome measures (see the "Major Outcomes Considered" field).

The panel decided not to include PICO questions on the prevention of glucocorticoid (GC)-induced osteoporosis and immunization in PMR because there are published recommendations by the ACR and European League Against Rheumatism (EULAR), respectively on these issues. Also, the group decided not to specify cut-offs for most PICO items (such as long and short duration of GC therapy, rapid and slow taper of GCs, older and younger age, high and low levels of inflammatory markers, more and less active/severe disease, longer and shorter symptom duration, rapid and delayed response to GCs, optimal and conventional control management) because there are no uniformly accepted definitions for these parameters. The group further argued that literature review might reveal relevant cut-offs (i.e., the cut-offs that were used to segregate groups in clinical studies) for these items.

External Evidence

After the results of the systematic literature review became available, the panel recognized that there is a paucity of data regarding safety aspects of non-steroidal anti-inflammatory drugs (NSAIDs) (no prospective data), glucocorticoids (GCs) (39 prospectively studied patients) and methotrexate (MTX, 97 prospectively investigated patients) in PMR. The panel found it difficult to balance benefits versus harms of these substances in PMR, given that the available studies had an insufficient sensitivity to detect rare and long-term side effects. On the other hand, all these drugs have been the standard of care for other conditions such as rheumatoid arthritis (RA) or osteoarthritis (OA) and thousands of patients have been followed-up in (non-PMR) clinical studies already. In order to inform the voting panel about important safety aspects, the panel decided to revise the protocol toward the presentation of other ACR and EULAR recommendations related to the use of NSAIDs, GCs and MTX in populations with a similar demography (i.e. RA, OA, gout, calcium pyrophosphate disease [CPPD] and giant cell arteritis) to the guideline group. The panel strongly felt that it would be unethical not to take such information into account. The information retrieved from these papers was ultimately used as indirect, supporting evidence. The rationale for the consideration of ACR and EULAR recommendations (and supporting references) rather than any other source of data was the assumption that ACR and EULAR recommendations are supported by high-quality SLRs and that the recommendations made in these papers can be accepted as the current standard of clinical care. The panel retrieved the recommendation papers from ACR and EULAR homepages and focused on recommendations published after January 1, 2000.

Forming Recommendations

According to GRADE methodology, the voting panel should consider the following aspects when formulating the recommendations: 1) overall quality of evidence; 2) balance between desirable and undesirable effects; 3) patients' and clinicians' values and preferences; and 4) resource use. External evidence on safety aspects was taken into account (as indirect evidence) in this project in order to identify the optimal trade-off between benefit and harm of interventions (see also above). Prognostic factors were used to build subgroups and to adapt the recommendations based on the presence or absence of unfavorable prognostic factors. Final recommendations were either "in favor" or "against" an intervention, and were graded with "conditional" or "strong". A strong recommendation in favor (against) was considered when the panel was very certain that benefits did (did not) outweigh risks and burdens, preferences/values of patients were met (not met) and resource use was reasonable (unreasonable high). In case some uncertainty existed, a conditional recommendation was made.

Discussions about the evidence and the possible wording of the recommendations were conducted at the Annual Meeting of the ACR in October 2013, where the group also decided to create a flow chart supporting clinical decision pathways. Further, the group discussed and finally consented about the principal direction and strength of the recommendations. Thereafter, 3 members of the voting panel drafted the preliminary recommendations/flow chart that was subject to further discussion and refinement at another face-to-face meeting (before the International Conference for PMR and GCA 11/2013 in Southend, UK), four online conferences and e-mail-based communications. At each of these meetings/online conferences/e-mail contacts, the project leaders summarized the comments of the participants and asked for any dissent. The final recommendations were then circulated by e-mail for formal acceptance. At this stage, the guideline panel set the dateline for a response at 21 April 2014, and assumed a consent to the final paper in case no further clarifications were requested. Since no dissent was reported until this dateline, a consensus was assumed for all points. Voting and grading of the level of agreement as performed in earlier recommendations was not necessary for this project.

In addition to the individual treatment recommendations based on PICO questions and supporting evidence from the SLR, the panel formulated several principles that were uniformly considered important to be conveyed to those with PMR or involved with the management of PMR. These principles were formulated with understanding that they reflect current standards of clinical care, values and preferences of clinicians and patients and were of such a generic nature that they were considered to be "overarching".

The first draft of the recommendations were publicly presented at the International Conference for PMR and GCA 11/2013 in Southend, UK. This conference was open to all physicians and allied health care professionals interested in PMR and/or GCA, as well as to patients. Feedback and suggestions obtained at this meeting were recorded, summarized and presented to the voting panel by the project leaders in an online conference for further discussion and incorporation into the recommendations.

Rating Scheme for the Strength of the Recommendations

Final recommendations were either "in favor" or "against" an intervention, and were graded as "conditional" or "strong." A strong recommendation in favor (against) was considered when the panel was certain that benefits did (did not) outweigh risks and burdens, the preferences/values of patients were met (not met) and resource use was reasonable (unreasonably high). If uncertainty existed, a conditional recommendation was made.

Cost Analysis

Cost implications are outside the scope of these recommendations.

Method of Guideline Validation

External Peer Review

Description of Method of Guideline Validation

The first draft of the recommendations were publicly presented at the International Conference for Polymyalgia Rheumatics (PMR) and Giant Cell Arteritis (GCA) 11/2013 in Southend, UK. This conference was open to all physicians and allied health care professionals interested in PMR and/or GCA, as well as to patients. Feedback and suggestions obtained at this meeting were recorded, summarized and presented to the voting panel by the project leaders in an online conference for further discussion and incorporation into the recommendations.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Caporali R, Cimmino MA, Ferraccioli G, Gerli R, Klersy C, Salvarani C, Montecucco C, Systemic Vasculitis Study Group of the Italian Society for Rheumatology. Prednisone plus methotrexate for polymyalgia rheumatica: a randomized, double-blind, placebo-controlled trial. Ann Intern Med. 2004 Oct 05;141(7):493-500. PubMed

Dasgupta B, Dolan AL, Panayi GS, Fernandes L. An initially double-blind controlled 96 week trial of depot methylprednisolone against oral prednisolone in the treatment of polymyalgia rheumatica. Br J Rheumatol. 1998 Feb;37(2):189-95. PubMed

Ferraccioli G, Salaffi F, De Vita S, Casatta L, Bartoli E. Methotrexate in polymyalgia rheumatica: preliminary results of an open, randomized study. J Rheumatol. 1996 Apr;23(4):624-8. PubMed

Nazarinia AM, Moghimi J, Toussi J. Efficacy of methotrexate in patients with polymyalgia rheumatica. Koomesh. 2012;14:265-70.

van der Veen MJ, Dinant HJ, van Booma-Frankfort C, van Albada-Kuipers GA, Bijlsma JW. Can methotrexate be used as a steroid sparing agent in the treatment of polymyalgia rheumatica and giant cell arteritis?. Ann Rheum Dis. 1996 Apr;55(4):218-23. PubMed

Type of Evidence Supporting the Recommendations

The type of evidence supporting each of the 22 PICO (Population, Intervention, Comparator, Outcome) questions is described in detail in the supporting systematic literature review and in supplementary online evidence tables S1 (for interventions) and S2 (for prognostic factors) (see the "Availability of Companion Documents" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Well considered, international recommendations can serve to standardize practice and improve patient care. Refer to the original guideline document and the companion systematic review for discussions of the potential benefits versus harms of specific interventions used in the management of polymyalgia rheumatica.

Potential Harms

Adverse events and side effects related to glucocorticoids (GCs) and methotrexate (MTX)

Qualifying Statements

Qualifying Statements

- Guidelines and recommendations developed and/or endorsed by the American College of Rheumatology (ACR) are intended to provide guidance for particular patterns of practice and not to dictate the care of a particular patient. The ACR considers adherence to these guidelines and recommendations to be voluntary, with the ultimate determination regarding their application to be made by the physician in light of each patient's individual circumstances. Guidelines and recommendations are intended to promote beneficial or desirable outcomes but cannot guarantee any specific outcome. Guidelines and recommendations developed or endorsed by the ACR are subject to periodic revision as warranted by the evolution of medical knowledge, technology, and practice.
- The ACR is an independent, professional, medical and scientific society which does not guarantee, warrant, or endorse any commercial product or service.
- The European League Against Rheumatism (EULAR)/ACR recognizes that their recommendations are only partially supported by evidence, and that they do not cover all aspects important for the management of polymyalgia rheumatica (PMR). The group therefore unanimously agreed that the research agenda (containing the evidence gaps related to PMR management) is an important result of this project (refer to Box 2 in the original guideline document).
- The most important limitations of this project are the paucity of high quality trials and the fact that Grading of Recommendations Assessment, Development and Evaluation (GRADE) is less well developed for the assessment of rare outcomes. Consequently, the quality of evidence (QoE) for adverse events is usually lower than for efficacy data. This necessitated the use of relevant external evidence to strengthen this aspect of the recommendations.

Refer to the guideline supporting information for additional information (see the "Availability of Companion Documents" field).

Implementation of the Guideline

Description of Implementation Strategy

Release and Implementation of the Recommendations

Implementation of the 2015 European League Against Rheumatism/American College of Rheumatology (EULAR/ACR) recommendations for treatment and management of polymyalgia rheumatica (PMR) in clinical practice will be a multistep procedure initiated by presentation and discussion of the recommendations at international and national meetings. The panel members will assist the national societies of rheumatology, internal medicine, primary care and health care professionals to implement the new recommendations into daily clinical care. The panel members will also promote the adoption of the new recommendations by the National Institute for Health and Care Excellence (NICE). Pocket recommendations and online tools (such as the Map of Medicine by the Royal College of Physicians) may support the routine use of these recommendations.

There may also be some barriers: The enthusiasm to follow these new recommendations, for example, may differ between primary care physicians and specialists and may differ among countries. National health care systems with a high emphasis on international quality standards of care are more likely to adopt the new recommendations than systems without such a focus. Another barrier may be the fact that early use of methotrexate may lead to a shift of new PMR patients from primary toward specialty care (and thus to a shift of resources), as disease-modifying antirheumatic drugs (DMARDs) are usually prescribed (and often also monitored) by rheumatologists or specialists in internal medicine.

Implementation Tools

Patient Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Dejaco C, Singh YP, Perel P, Hutchings A, Camellino D, Mackie S, Abril A, Bachta A, Balint P, Barraclough K, Bianconi L, Buttgereit F, Carsons S, Ching D, Cid M, Cimmino M, Diamantopoulos A, Docken W, Duftner C, Fashanu B, Gilbert K, Hildreth P, Hollywood J, Jayne D, Lima M, Maharaj A, Mallen C, Martinez-Taboada V, Maz M, Merry S, Miller J, Mori S, Neill L, Nordborg E, Nott J, Padbury H, Pease C, Salvarani C, Schirmer M, Schmidt W, Spiera R, Tronnier D, Wagner A, Whitlock M, Matteson EL, Dasgupta B, European League Against Rheumatism, American College of Rheumatology. 2015 recommendations for the management of polymyalgia rheumatica: a European League Against Rheumatism/American College of Rheumatology collaborative initiative. Arthritis Rheumatol. 2015 Oct;67(10):2569-80. [78 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2015 Oct

Guideline Developer(s)

American College of Rheumatology - Medical Specialty Society

European League Against Rheumatism - International Agency

Source(s) of Funding

Supported by research grants from the American College of Rheumatology (ACR) and the European League Against Rheumatism (EULAR).

Guideline Committee

Core Expert Panel

Voting Panel

Composition of Group That Authored the Guideline

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None of the panel members disclosed any conflict of interest associated with the development of these recommendations.

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Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the American College of Rheumatology (ACR) Web site .

Availability of Companion Documents

The following are available:

Dejaco C, Singh YP, Perel P, Hutchings A, Camellino D, Mackie S, Matteson EL, Dasgupta B. Current evidence for therapeutic interventions and prognostic factors in polymyalgia rheumatica: a systematic literature review informing the 2015 European League Against Rheumatism/American College of Rheumatology recommendations for the management of polymyalgia rheumatica. Ann Rheum Dis. 2015 Oct;74(10):1808-17. Available from the Annals of the Rheumatic Diseases Web site .

American College of Rheumatology policy and procedure manual for clinical practice guidelines. 2015 Jan. 80 p. Available from the American College of Rheumatology (ACR) Web site .

In addition, the data supplements are available from the Annals of the Rheumatic Diseases Web site . The guideline supporting information (methods, results, and discussion) is available from the ACR Web site .

Patient Resources

Fast facts for patients are available from the American College of Rheumatology (ACR) Web site .

NGC Status

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